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NAS FORT WORTH
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LETTER RESPONDING TO REGULATORY COMMENTS ON RCRA FACILITY
INVESTIGATION OF WASTE ACCUMULATION AREAS NAS FORT WORTH TX
4/20/1999
AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE

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**NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 478



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE TEXAS

FEDERAL EXPRESS

April 20, 1999

Mr. Ray Risner
Corrective Action Section
Texas Natural Resource Conservation Commission
12100 Park 35 Circle, Bldg. D
Austin, TX 78753

**Re: RCRA Facility Investigation of Waste Accumulation Areas
NAS Fort Worth JRB, Texas
Permit HW-50289**

Dear Mr. Risner:

This letter has been prepared in response to our conference call on Wednesday, March 24, 1999, during which we discussed the Final Work Plans (WPs) for the waste accumulation areas (WAAs) at Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB), Texas. These WPs describe the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) to be conducted at several solid waste management units (SWMUs) and areas of concern (AOCs) that require further investigation. During our conference call, we addressed possible ways to reduce the projected cost associated with the large number of Appendix IX sample analyses proposed in the Final WPs. This reduction is necessary due to recent rebidding of analytical costs by AFCEE's contractor and a subsequent increase of an Appendix IX analysis by 50 percent. You indicated in the conference call that the TNRCC would accept a shorter list of analyses for each site, as long as the Air Force provided adequate certification of the wastes handled at each WAA. You also indicated that the TNRCC would not require groundwater sampling at sites where a release to soil was not confirmed. This letter provides the necessary historical information regarding each WAA and subsequent list of recommended analyses for each WAA.

Provision VIII.A.2.b of Permit HW-50289 requires that soil and groundwater samples submitted for chemical analysis be analyzed in accordance with EPA SW-846 for all Appendix IX constituents, unless a shorter list can be justified. In order to provide adequate justification of a reduced list of analyses for the RFI, the Air Force has provided the attached Table 1 that summarizes the types and quantities of waste handled at each site. Table 1 also includes the analyses necessary to adequately determine if there was a release of hazardous materials at each site, based on the wastes handled at each site. The information provided in Table 1 was compiled from a number of sources that

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document both current and historical waste management practices, and the types of waste generated by the various industrial operations at NAS Fort Worth JRB. Additional waste sources were added to selected sites where there was potential for waste to be stored from industrial buildings located nearby. Background information was gathered from the following sources:

- A.T. Kearney 1989, RCRA Facility Assessment, PR/VSI Report, Carswell Air Force Base, Fort Worth, Texas
- CH2M HILL, 1984, Installation Restoration Program Records Search for Carswell Air Force Base, Texas
- CH2M HILL, 1996, Site Characterization Summary Informal Technical Information Report, NAS Fort Worth JRB, Carswell Field, Texas
- The Earth Technology Corporation, 1993, Basewide Environmental Baseline Survey, Carswell Air Force Base, Texas
- U.S. Air Force Occupational and Environmental Health Laboratory, Human Services Division, 1989, Hazardous Waste Technical Assistance Survey, Carswell AFB, Texas

The following documents regarding wastes currently stored at WAAs were provided by TNRCC:

- Texas Natural Resource Conservation Commission, 1995, Notice of Registration, Industrial and Hazardous Waste, Solid Waste Registration Number: 65004, EPA Id: TX0571924042
- Texas Natural Resource Conservation Commission, 1999, Notice of Registration, Industrial and Hazardous Waste, Solid Waste Registration Number: 65004, EPA Id: TX0571924042

Upon review of these documents, it was determined that the neither the satellite accumulation areas nor the permitted facility/DRMO identified in these listings correspond to the WAAs under investigation.

The types and quantities of wastes potentially stored at each SWMU/AOC, have been included in Table 1 to provide justification of a shorter list of analyses proposed for the following sites:

- SWMU 5 (Waste Accumulation Area (WAA) 1627/Building 1628)
- SWMU 6 (Building 1628 Washrack and Drain)
- SWMU 11 (WAA 1618/Buildings 1617 and 1619)
- SWMU 12 (WAA 1602/Building 1602)
- SWMU 16 (WAA 1059/Building 1060)
- SWMU 31 (WAA 1050/Building 1050)
- SWMU 32 (WAA 1415/Building 1410)
- SWMU 33 (WAA 1436/Building 1420)
- SWMU 34 (WAA 1194/Building 1194)
- SWMU 36 (WAA 1191/Building 1191)
- SWMU 39 (WAA 1641/Building 1643)
- SWMU 42 (WAA 1413/Building 1414)
- SWMU 51 (WAA 1187 and 1189/Building 1190)

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- SWMU 61 (WAA 1319/Building 1320)
- AOC 6 (RV Parking Area)
- AOC 15 (Building 1190 Storage Shed)

Table 1 provides a summary of the materials handled or potentially handled at each of the subject sites along with proposed analyses for each site. Based on your concurrence with this information, the Air Force will prepare Revised Final WPs separating the investigation into a two-phased approach. Soil sampling will be conducted in the first phase and groundwater sampling will be conducted in the second phase only at sites where soil contamination is identified. The revised plans will reduce the Appendix IX list of analyses previously proposed in the Final WPs to the analyses proposed in Table 1. The proposed sampling locations and depth intervals will remain the same. Groundwater samples will be analyzed for constituents that show evidence of a release to the environment based on the results of soil investigations at the subject sites. The field effort for this RFI is scheduled to begin in early May. Your prompt response to these proposed changes would be greatly appreciated.

Please call me with any questions or comments at 210/536-5290.

Sincerely,



Joseph R. Dunkle
Remedial Program Manager
NAS Fort Worth JRB

Attachment (Table 1)

cc: Mr. Mike Dodyk
HQ AFCEE/ERD
6560 White Settlement Road
Fort Worth, TX 76114

Mr. Todd Harrah
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3202 2nd Street, Building 538
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Table 1
Current SWMU Summary Table
NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 5	<u>Building 1628 -</u> Corrosion Control Shop AGE Maintenance Shop	Approx. 1982 - Present	PD-680 (Type II) (petroleum naptha solvent)(660 gal/yr) - drummed JP-4 (2,500 gal/yr) - drummed Synthetic oil (150 gal/yr) - drummed 7808 engine oil (1,000 gal/yr) - 500-gallon bowser Hydraulic, transmission, and brake fluids (120 gal/yr) - bowser Antifreeze (60 gal/yr) - drummed Paints and thinners (toluol, MEK, isopropanol, naptha, xylene) (120 gal/yr) - drummed Paint stripper (methylene chloride, toluene)(110 gal/yr) - drummed Spent lead acid batteries (unspecified amount) - pallet Battery acid (unspecified amount) - DRMO Mean Green Soap (aircraft soap) (660 gal/yr) - OWS MEK (12 gal/yr) - used in process	TPH (TX1005) Soil pH (SW9045) Ethylene Glycol (SW8015) <u>Appendix IX:</u> VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 6	<u>Building 1628 -</u> Washrack and Drain	1979 - Approx. 1990	Mean Green Soap (aircraft soap) (660 gal/yr) - OWS PD-680 (Type II) (petroleum naptha solvent)(300 gal/yr) - OWS Wastewater containing fractions of: JP-4, waste paints and thinners, hydraulic fluids, engine oil (unspecified amount) - OWS May have received surface runoff from SWMU 5. PD-680 (petroleum naptha solvent)(Type II) (660 gal/yr) - drummed JP-4 (2,500 gal/yr) - drummed Synthetic oil (150 gal/yr) - drummed 7808 engine oil (1,000 gal/yr) - 500 gallon bowser Hydraulic, transmission, and brake fluids (120 gal/yr) - bowser Antifreeze (60 gal/yr) - drummed Paints and thinners (toluol, MEK, isopropanol, naptha, xylene)(120 gal/yr) - drummed Paint stripper (methylene chloride, toluene)(110 gal/yr) - drummed Spent lead acid batteries (unspecified) - pallet Battery acid (unspecified amt.) - DRMO Mean Green Soap (aircraft soap) (660 gal/yr) - OWS MEK (12 gal/yr) - used in process	TPH (TX1005) Soil pH (SW9045) Ethylene Glycol (SW8015) <u>Appendix IX:</u> VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

Table 1 (continued)
Current SWMU Summary Table
NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 11	Building 1617 and 1619 Paint Shop Electronics Shop	Approx. 1982 - Present	Waste paints: Polyurethane (120 gal/yr) - drummed Enamel (60 gal/yr) - drummed Thinners (toluol, MEK, isopropanol, naphtha, xylene)(120 gal/yr) - drummed Sodium persulfate solution (96 gal/yr) - drummed Spent etchant, lacquer thinner/ink residue (unspecified amount) - (unspecified container)	Soil pH (SW9045) <u>Appendix IX:</u> VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 12	Building 1602 - Propulsion Shop	Approx. 1982 - 1990	Waste JP-4 (84 gal/yr) - drummed 7808 engine oil (84 gal/yr) - drummed PD-680 (Type II)(petroleum naphtha solvent) (60 gal/yr) - drummed	TPH (TX1005) <u>Appendix IX:</u> VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 16	Building 1060 - Corrosion Control Shop Building 1050 - Pnedraulics Shop	Approx. 1982 - 1990	Surface stripper (36 gal/yr) - drummed Hot tank stripper (640 gal/yr) - drummed Paint remover (methylene chloride, toluene)(36 gal/yr) - drummed Hydrofluoric acid (1.5 gal/yr) - neutralized, down drain Alodine (acid) (120 gal/yr) - neutralized, down drain Aircraft soap (120 gal/yr) - drummed MEK (240 gal/yr) - drummed Waste polyurethane paint (600 gal/yr) - drummed Rags contaminated with polyurethane paint - drummed Spent bead blasting media (unspecified amount) - drummed Hydraulic fluid (120 gal/yr) - drummed PD-680 (Type II)(petroleum naphtha solvent)(1200 gal/yr) - drummed	Soil pH (SW9045) <u>Appendix IX:</u> VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

Table 1 (continued)
Current SWMU Summary Table
NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 31	<u>Building 1050 -</u> Pnedraulics Shop <u>Building 1055 -</u> Fire Control Shop	1955-1990	Waste hydraulic fluid and oil (120 gal/yr) - drummed PD-680 (Type II) (petroleum naptha solvent)(150 gal/yr) - drummed MEK (unspecified amount) - unspecified container TCE (unspecified amount) - unspecified container Perchloroethylene (unspecified amount) - unspecified container SE-377C (solvent) contaminated with cadmium (unspecified amount) - unspecified container Citri-Kleen (solvent) (unspecified amount) - unspecified container Silicone damping fluid contaminated with Freon 113 (unspecified amount) - unspecified container	TPH (TX1005) Appendix IX: VOCs/Freon 113 (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 32	<u>Building 1410 -</u> Battery Shop Engine Shop Bearing Shop Wheel and Tire Shop	Early 1940s - Present	7808 engine oil (550 gal/yr) - drummed PD-680 (Type II) (petroleum naptha solvent)(300 gal/yr) - drummed JP-4 (125 gal/yr) - fire training area Multi-sheen (stripper) (60 gal/yr) - down drain Hydraulic fluid (24 gal/yr) - bowser Calibrating fluid (unspecified amount) - 500-gallon bowser Carbon remover (cresylic acid) (unspecified amount) - drummed Fingerprint remover (degreaser) (unspecified amount) - drummed Battery electrolyte (500 gal/yr) - neutralized, sanitary sewer TCE (unspecified amount) - unspecified container Possible spent batteries (unspecified amount) - unspecified container SE-377E (solvent) (unspecified amount) - unspecified container	TPH (TX1005) Soil pH (SW9045) Phenols (SW8041) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 33	<u>Building 1420 -</u> MMS Equipment Maintenance Shop Possibly received waste from Buildings 1403, 1405, and 1434 Corrosion Control Shops	Approx. 1982 - Present	PD-680 (Type II)(petroleum naptha solvent) (240 gal/yr) - drummed Brake and hydraulic fluids (240 gal/yr) - drummed MEK (0.5 gal/yr) - used in process Soap (120 gal/yr) - down drain Possibly received waste from Building 1434 Thinner (toluol, MEK, isopropanol, naphtha, xylene)(15 gal/yr) - drummed Waste paints and solvents (1500 gal/yr) - unspecified container Strippers (methylene chloride, toluene) (unspecified amount) - unspecified container	TPH (TX1005) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

Table 1 (continued)
Current SWMU Summary Table
NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 34	Building 1194 - Vehicle Refueling Shop	Unknown startup date- 1990	Waste engine oils (240 gal/yr) - 300-gallon bowser Transmission fluid (24 gal/yr) - drummed Antifreeze (70 gal/yr) - drummed PD-680 (Type II) (petroleum naphtha solvent) (100 gal/yr) - drummed Aircraft cleaning soap (120 gal/yr) - OWS JP-4 (5000 gal/yr) - fire training pit Safety-Kleen (solvent) (300 gal/yr) - tank serviced by contractor	TPH (TX1005) Ethylene Glycol (SW8015) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 36	Building 1191 - Vehicle Maintenance Shop Allied Trades Shop Building 1425 - Fire Truck Maintenance Shop Building 1065 - Vehicle Maintenance Shop	Approx. 1982 - Present	7808 engine oil (1800 gal/yr) - unspecified container Battery acid (300 gal/yr) - DRMO Leaded and unleaded waste oil (1800 gal/yr) - drummed Waste automotive fuel (240 gal/yr) - drummed Antifreeze (600 gal/yr) - drummed Waste paints and thinners (toluol, MEK, isopropanol, naphtha, xylene) (120 gal/yr) - unspecified container Waste oils and transmission fluids (3000 gal/yr) - drummed PD-680 (Type II) (petroleum naphtha solvent) (150 gal/yr) - drummed Mogas (75 gal/yr) - drummed Hydraulic fluids (384 gal/yr) - drummed Safety-Kleen (solvent) (500 gal/yr) - tank serviced by contractor	TPH (TX1005) Soil pH (SW9045) Ethylene Glycol (SW8015) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
SWMU 39	Building 1643 - Phase Dock Pnedraulics Shop Wheel and Tire Shop (all aircraft maintenance)	Approx. 1982 - 1990	PD-680 (Type II) (petroleum naphtha solvent) (1420 gal/yr) - bowser, drummed JP-4 (600 gal/yr) - drummed Waste oil (12 gal/yr) - 200-gallon waste oil trailer Hydraulic fluid (192 gal/yr) - drummed, bowser Stripper (methylene chloride, toluene) (100 gal/yr) - drummed Mean Green Soap (12 gal/yr) - OWS Carbon remover (cresylic acid) (8 gal/yr) - OWS, used in process	TPH (TX1005) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

Table 1 (continued)
Current SWMU Summary Table
NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 42	Building 1414 - AGE Shop NDI Shop Possibly received waste from Building 1434 - Corrosion Control	Approx. 1982 - 1990	Waste PD-680 (Type II) (petroleum naptha solvent) (960 gal/yr) - drummed JP-4 (1500 gal/yr) - drummed Mogas (600 gal/yr) - drummed Diesel (1980 gal/yr) - drummed Waste oils (3300 gal/yr) - 500-gallon bowser Synthetic oils (1800 gal/yr) - drummed Hydraulic fluids (660 gal/yr) - drummed Antifreeze (960 gal/yr) - drummed Aircraft soap (1800 gal/yr) - sanitary sewer CitriKleen (solvent) (660 gal/yr) - OWS Die penetrant (aeromatic naptha, ethoxylated octophenol, biphenyl octyl phosphate, fluorescent dye) (220 gal/yr) - drummed Emulsifier (petroleum sulfonate, paraffin oil, ethoxylated octenyl, butyl zyethyl phosphate) (220 gal/yr) - drummed Developer (sodium chromate) (100 gal/yr) - sanitary sewer Fixer (ammonium thiosulfate, sodium thiosulfate, N-methylpyrrolidone) (200 gal/yr) - silver recovery, sanitary sewer 1,1,1-trichloroethane (unspecified amount) - drummed Possibly received waste from Building 1434 Thinner (toluol, MEK, isopropanol, naptha, xylene)(15 gal/yr) - drummed Waste paints and solvents (1500 gal/yr) - unspecified container Strippers (methylene chloride, toluene) (unspecified amount) - unspecified container	TPH (TX1005) Ethylene Glycol (SW8015) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

Table 1 (continued)
 Current SWMU Summary Table
 NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
SWMU 51	WAA 1189 and 1187 Served as central waste holding area.	Approx. 1982 - 1990	Received unspecified quantities of various wastes from throughout the base, stored in three separate areas throughout the SWMU. Cluster 1: empty drums which may have contained traces of solvents, fuels, oils used on base Cluster 2: wastewater from facility monitoring well - drummed Cluster 3: PD-680, xylene - drummed	Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Organochlorine Pesticides/PCBs (SW8081/8082) Organophosphorus Pesticides (SW8141) Chlorinated Herbicides (SW8151) Dioxins/Furans (SW8280) Cyanide (SW9010A/SW9012) Sulfide (SW9030) Trace Elements (Metals)(SW6010A/7000) Mercury (SW7470A/7471A)
SWMU 61	<u>Building 1320 -</u> Power Production Maintenance Facility	Approx. 1982 - 1990	Waste gasoline and diesel fuel (108 gal/yr) - drummed 7808 engine oil (156 gal/yr) - bowser PD-680 (Type II) (108 gal/yr) - drummed Antifreeze (156 gal/yr) - drummed Battery acid (360 gal/yr) - DRMO Hard material similar to roofing tar (unspecified amount) - bucket	TPH (TX1005) Soil pH (SW9045) Ethylene Glycol (SW8015) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)
AOC 6	RV Parking Area	Unknown startup date- Present	The following wastes may have been stored or utilized during maintenance activities on vehicles stored within this area: Waste oils (unspecified amount) - unspecified container Waste fuels (unspecified amount) - unspecified container Antifreeze (unspecified amount) - unspecified container Paints/thinners (unspecified amount) - unspecified container Solvents/cleaners (unspecified amount) - unspecified container	TPH (TX1005) Ethylene Glycol (SW8015) Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Metals/Mercury(SW6010/7000)

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Table 1 (continued)
 Current SWMU Summary Table
 NAS Fort Worth JRB, Texas

SWMU/ AOC	Waste Source:	Operational Period	Materials Received	Analyses
AOC 15	Building 1190 - storage shed Area may have received runoff from SWMU 51	Unknown startup date- 1990	PD-680 (unspecified quantity) - unspecified container Xylene (unspecified quantity) - unspecified container Possible runoff from SWMU 51 - central waste holding area	Appendix IX: VOCs (SW8260B) SVOCs (SW8270C) Organochlorine Pesticides/PCBs (SW8081/8082) Organophosphorus Pesticides (SW8141) Chlorinated Herbicides (SW8151) Dioxins/Furans (SW8280) Cyanide (SW9010A/SW9012) Sulfide (SW9030) Trace Elements (Metals)(SW6010A/7000) Mercury (SW7470A/7471A)

Sources:

- A.T. Kearney 1989, RCRA Facility Assessment, PR/VSI Report, Carswell Air Force Base, Fort Worth, Texas
 CH2M HILL, 1984, Installation Restoration Program Records Search for Carswell Air Force Base, Texas
 Texas Natural Resource Conservation Commission, 1995, Notice of Registration, Industrial and Hazardous Waste, Solid Waste Registration
 Number: 65004, EPA Id: TX0571924042
 Texas Natural Resource Conservation Commission, 1999, Notice of Registration, Industrial and Hazardous Waste, Solid Waste Registration
 Number: 65004, EPA Id: TX0571924042
 The Earth Technology Corporation, 1993, Basewide Environmental Baseline Survey, Carswell Air Force Base, Texas
 U.S. Air Force Occupational and Environmental Health Laboratory, Human Services Division, 1989, Hazardous Waste Technical Assistance Survey, Carswell AFB, Texas

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